**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 00-505-B)

In re A	hpplication	of:	)	
	Progulske	e-Fox	)	
Serial	No.: 09	/980,845	)	Examiner: Not Assigned
Filed:	Au	gust 4, 2000	)	Group Art Unit: Not Assigned
For:		Polynucleotides Expressed ection of a Host	) } }	RECEIVED
			·	- 5 JUL 2006
Commi	ssioner for	Patents		

P.O. Box 1450 Alexandria, VA 22313-1450

Legal Staff International Division

#### TRANSMITTAL LETTER

- 1. We are transmitting herewith the attached papers for the above-identified patent application:
  - a) Trańsmittal letter (in duplicate)
  - b) Request for Consideration of Petition Under 37 CFR §1.181(a);
  - c) Petition to Withdraw Holding of Abandonment Under 37 CFR §1.183;
  - d) Petition for Revival of Abandoned Application Under 37 CFR §1.137(b);
  - e) Appendices A H
  - f) Return Receipt Postcard
- 2. **GENERAL AUTHORIZATION TO CHARGE OR CREDIT FEES:** Please charge any additional fees or credit overpayment to Deposit Account No. **13-2490**. A duplicate copy of this sheet is enclosed.
- 3. **CERTIFICATE OF MAILING UNDER 37 CFR §1.8**: The undersigned hereby certifies that this Transmittal Letter and the paper described in paragraph 1, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 12, 2006.

Void date: 08/23/2006 CKHLOK 08/23/2005 SBASHEIR 00000003 132490 01 FC:1462 400.00 CR 02 FC:2453 1500.00 CR

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Dated: June 12, 20061462

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isa M.W. Hilman, Ph.D.

Reg. No. 43,673

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01 FC:1462 400.00 DA 02 FC:2453 750.00 DA

08/23/2006 CKHLOK

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 00-505-B)

In re Applio	ation of:	)
Prog	gulske-Fox	)
Serial No.:	09/980,845	) Examiner: Not Assigned
ochai ito	03/300,043	) Group Art Unit: Not Assigned
Filed:	August 4, 2000	)
	obial Polynucleotides Expressed	) }

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### TRANSMITTAL LETTER

- 1. We are transmitting herewith the attached papers for the above-identified patent application:
  - a) Transmittal letter (in duplicate)
  - b) Request for Consideration of Petition Under 37 CFR §1.181(a);
  - c) Petition to Withdraw Holding of Abandonment Under 37 CFR §1.183;
  - d) Petition for Revival of Abandoned Application Under 37 CFR §1.137(b):
  - e) Appendices A H
  - f) Return Receipt Postcard
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- 3. **CERTIFICATE OF MAILING UNDER 37 CFR §1.8**: The undersigned hereby certifies that this Transmittal Letter and the paper described in paragraph 1, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 12, 2006.

Dated: June 12, 2006

By:

Lisa M.W. Hilman, Ph.D

Reg. No. 43,673

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 00-505-B)

In re Application of:		)
		)
Progr	ulske-Fox	)
		) Examiner: Not Assigned
Serial No.:	09/980,845	)
		) Group Art Unit: Not Assigned
Filed:	August 4, 2000	)
	9	) Conf. No. 3701
For: Micro	obial Polynucleotides Expressed	)
Durii	ng Infection of a Host	)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# REQUEST FOR RECONSIDERATION OF PETITION UNDER 37 CFR §1.181(A); PETITION TO WITHDRAW HOLDING OF ABANDONMENT UNDER 37 CFR §1.183; AND PETITION FOR REVIVAL OF ABANDONED APPLICATION UNDER 37 C.F.R. §1.137(B)

This paper is filed in response to the Decision mailed on May 5, 2006 in the above-mentioned application. Applicants respectfully request reconsideration of the Decision on the Petition filed under 37 CFR §1.181(a) and furthermore, in the alternative, Petition the Director under 37 CFR §1.183. In the alternative, Applicants petition for revival of the application under 37 C.F.R. §1.137(b).

- I. A Background Section begins on page 2 of this paper.
- II. A Request for Reconsideration of Petition for Withdrawal of Holding of Abandonment Under 37 C.F.R. §1.181(a) begins on page 4 of this paper.
  - III. In the alternative, a Petition for Withdrawal of Holding of Abandonment Under 37 C.F.R. §1.183 begins on page 6 of this paper.
  - IV. In the alternative, a Petition for Revival of Abandoned Application Under 37 C.F.R. §1.137(b) begins on page 8 of this paper.
  - V. A conclusion begins on page 9 of this paper.

#### I. Background

A notification of missing requirements was mailed on February 28, 2002 (Appendix A) in the above-mentioned application. A response to the notice was filed on March 27, 2002 under the provisions of 37 CFR §1.8 and a stamped postcard was received from the Office indicating that the response was indeed received. *See*, Appendix B. The response included the required declaration, a paper copy of the sequence listing, a computer-readable form of the sequence listing, a statement under 37 CFR §1.821, and a fee. *See*, Appendix B.

On June 12, 2002 a notification of defective response was issued by the Office. See, Appendix C. The notification stated that the computer readable form filed with the application was found to be damaged and/or unreadable as evidenced by the attached CFR Problem Diskette Report. No CFR Problem Diskette Report was attached. The notification also stated that the computer readable form did not comply with the sequence listing requirements. A Raw Sequence Listing Error Report was attached to the notification. A response was timely filed by the applicants on June 24, 2002 under the requirements of 37 CFR §1.8. A stamped postcard was received from the Office to evidence receipt. See, Appendix D. It was the undersigned's good faith belief that all errors listed in the raw sequence listing error report were corrected in the response of June 24, 2002. See, Appendix D.

Two and one half years later, on January 3, 2005, another notification of defective response was received from the Office. *See*, Appendix E. The notification stated that (1) the content of the computer readable form submitted on June 24, 2002 did not comply with the requirement of Annex C as indicated by the attached marked up copy of the "Raw Sequence Listing"; and (2) that the computer readable form was found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. However, no Raw Sequence Listing Error Report or Diskette Problem Report was attached to the notification.

On January 24, 2005 the undersigned requested the Raw Sequence Listing Error Report and/or Diskette Problem Report from Examiner Vonda Wallace via both phone and facsimile. See, Appendix F. No response was received from Examiner Wallace. Since no extensions of time were available to applicants, a response was filed on February 3, 2005 under the requirements of 37 CFR §1.8. A stamped postcard was received from the Office to evidence receipt. See, Appendix G. The response included an explanation of the situation, including the

fact that the notification of defective response was defective, and a written copy and computerreadable form of the sequence listing. See, Appendix G.

Well over a year later, on March 3, 2006, a notice of abandonment for failure to reply to the notification of missing requirements of February 28, 2002 was issued. *See,* Appendix H. Attached to the notification was a Raw Sequence Listing Error Report dated January 18, 2006. It is unclear which version of the sequence listing was used to generate this report or why a copy of the Raw Sequence Listing Error Report from the January 3, 2005 notification was never provided to the Applicants.

All replies have been filed within time periods set within the notifications. The Office has not alleged that the application has been abandoned based on an insufficiency of reply. See, MPEP §711.03(a). Applicants have made a good faith effort to timely and correctly respond to the notifications received from the Office despite the fact that the notifications were incomplete and/or inconsistent (i.e., missing reports or stating that the disk was damaged and/or unreadable and providing a report from a clearly readable disk) and a request for clarification went unanswered.

The sequence listing submitted on June 24, 2002 was substantially and overwhelmingly correct in-substance. It appears that there was only an extraordinarily minor defect, which was the use of the phrase "N stands for any polynucleotide" instead of "N stands for any nucleotide" in SEQ ID NO:4 to describe one of 23 "X" nucleotides in the 507 nucleotide long sequence. This defect was not detectable by Checker, the Office's validation software for sequence listings.

A corrected written copy and computer readable form of the sequence listing was submitted on March 16, 2006. It appears that this listing is error free and has been entered. Also submitted on March 16, 2006 was a petition to withdraw a holding of abandonment under 37 C.F.R. §1.181(a). On May 5, 2005 the Office issued a decision that denied the petition.

Applicants now petition for withdrawal of the holding of abandonment under 37 C.F.R. §1.181(a) or in the alternative 37 C.F.R. §1.183 or alternatively for revival of the abandoned application under 37 C.F.R. §1.137(b).

McDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 SOUTH WACKER DRIVE, 32ND FLOOR CHICAGO, IL 60606 TELEPHONE (312) 913-0001

# II. Request for Reconsideration of Petition for Withdrawal of Holding of Abandonment Under 37 C.F.R. §1.181(a)

Under 37 C.F.R. §1.135 (a) if an applicant of a patent application fails to reply within the time period provided under §1.136(a) an application will become abandoned unless an Office action indicates otherwise. Additionally, under §1.135(c) when reply by the applicant is a bona fide attempt to advance the application to final action, and is substantially a complete reply to the non-final Office action, but consideration of some matter or compliance with some requirement has been inadvertently omitted, applicant may be given a new time period for reply under §1.134 to supply the omission.

When the Office provided the January 3, 2005 notification of defective response, any abandonment of the application as of September 20, 2002 was precluded because, as the Office properly recognized, the applicant made a *bona fide* attempt to advance the application with a substantially complete reply. The Office was wholly within its discretion to **not abandon** the application and to provide the Applicants with another opportunity to correct a very minor error in a sequence listing. The Office cannot now withdraw their acceptance of Applicants' June 24, 2002 response because it was accepted within their discretion.

Unfortunately, the January 3, 2005 notification of defective response was defective itself, which denied the applicants of the opportunity to provide a corrected sequence listing. The notification stated that (1) the content of the computer readable form submitted on June 24, 2002 did not comply with the requirement of Annex C as indicated by the attached marked up copy of the "Raw Sequence Listing"; and (2) that the computer readable form was found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. However, no Raw Sequence Listing Error Report or Diskette Problem Report was attached to the notification. It was therefore unclear as to the Applicants if the computer readable form (1) did not comply with the sequence listing rules **OR** (2) was damaged and unreadable.

Applicants did indeed try to clarify the situation. On January 24, 2005 the undersigned requested the Raw Sequence Listing Error Report and/or Diskette Problem Report from Examiner Vonda Wallace via both phone and facsimile. *See*, Appendix F. No response was received from Examiner Wallace. Since extensions of time were **not** available to Applicants, a response was filed on February 3, 2005. The sequence listing still contained a very minor error

MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 SOUTH WACKER DRIVE, 32ND FLOOR CHICAGO, IL 60606 TELEPHONE (312) 913-0001

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in SEQ ID NO:4, which was **not detectable** by Checker, the Office's validation software for Sequence Listings.

Since the January 3, 2005 notification of defective response was defective itself Applicants could not properly respond to the notification. The undersigned was unsure of whether there was an error in the sequence listing or if the disk was merely damaged. The Office did not respond to fax and phone requests for clarification. Therefore, Applicants filed a new sequence listing on February 3, 2005 with a (unknown to Applicants) very minor (and undetectable by Checker) error. Applicants have timely replied to every notification provided by the Office. The Office did not provide necessary information to the Applicants so that they could properly respond. Therefore, Applicants respectfully request that the holding of abandonment be withdrawn in this application.

McDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 SOUTH WACKER DRIVE, 32ND FLOOR CHICAGO, IL 60506 TELEPHONE (312) 913-0001

#### III. Petition for Withdrawal of Holding of Abandonment Under 37 C.F.R. §1.183

If the Office concludes that the holding of abandonment will not be withdrawn under 37 C.F.R. §1.181(a), Applicants petition for withdrawal of abandonment, in the alternative, under 37 C.F.R. §1.183.

37 C.F.R. §1.183 provides that in an extraordinary situation, when justice requires, any requirement of the regulations in this part which is not a requirement of the statutes may be suspended or waived by the Director or the Director's designee, *sua sponte*, or on petition of the interested party, subject to such other requirements as may be imposed. Applicants authorize the Commissioner to charge our deposit account 13-2490 a petition fee (under § 1.17(f)) of four hundred dollars (\$400).

The sequence listing submitted on June 24, 2002 was substantially and overwhelmingly correct in-substance. It appears that there was only an extraordinarily minor defect, which was the use of the phrase "N stands for any polynucleotide" instead of "N stands for any nucleotide" in SEQ ID NO:4 to describe one of 23 "X" nucleotides in the 507 nucleotide long sequence. This defect was not detectable by Checker, the Office's validation software for sequence listings. Justice requires that the response filed in 2002 be accepted because, in view of the extremely minor nature of the error, the result of abandonment is draconian.

Additionally, any abandonment as the result of the response to the January 3, 2005 Notice of Defective response should be withdrawn. The January 3, 2005 notice was defective itself and the Office did not respond to the Applicants' request for clarification. (See Section II, above). Since the defect in the sequence listing was not detectable by Checker and the Office did not provide a Raw Sequence Listing Report, the sequence listing was re-submitted on February 3, 2005 with the very minor error in SEQ ID NO:4 as described above. It is unclear if a Raw Sequence Listing Error Report was ever generated since the Report finally issued to Applicants on March 3, 2006, was actually generated on January 18, 2006.

Justice requires that the holding of abandonment be withdrawn in this application because of an extraordinary situation relating to the submission of the sequence listing in this application:

- Applicant submitted all responses in a timely manner;
- The submitted sequence listing contained an exceedingly minor error, which was not detectable by Checker;
- The Office acted within its discretion by issuing a notice of defective response on January 3, 2005 (and the application was therefore not abandoned on September 28, 2002).

- The January 3, 2005 notice of defective response was defective and it is not clear that a Raw Sequence Listing Error Report was ever generated at this time by the Office;
- The Office did not respond to requests for clarification of the January 3, 2005 notice of defective response;
- The Office excessively delayed in issuing the notice of defective response of January 2, 2005 and the notice of abandonment of May 30, 2006, unfairly prejudicing the Applicants.

If the Applicants petition under 37 C.F.R. §1.181(a) is denied, Applicants respectfully request that the holding of abandonment be withdrawn in the interests of justice under 37 C.F.R. §1.183.

#### IV. Petition for Revival of Abandoned Application Under 37 C.F.R. §1.137(b)

If the Director does not grant the petitions under 37 C.F.R. §1.183 or under 37 C.F.R. §1.181(a), Applicants respectfully alternatively petition for the revival of the application under 37 C.F.R. §1.137(b) because the abandonment of the application was unintentional. The reply to the outstanding notice (the sequence listing) was previously filed on March 16, 2006. It appears that the sequence listing is error free and has been entered. The Commissioner is authorized to charge our deposit account seven hundred fifty dollars (\$750) for the petition fee under 37 C.F.R. §1.17(m). The entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant 37 C.F.R.§1.137(b) was unintentional.

Applicants dispute the alleged abandonment date of September 28, 2002. If any abandonment should apply<sup>1</sup>, it should be a February 3, 2005 abandonment date, because the Office in its discretion issued a notice of defective response on January 3, 2005, which cannot now be rescinded.

Due to the fact that the date of abandonment of the application is under dispute at this time Applicants respectfully request a determination of the date of the abandonment of the application. Upon notification, Applicants will expeditiously submit a properly executed terminal disclaimer and fee as required under this section to the Office. The Office is invited to call the undersigned so that a Terminal Disclaimer can be signed and faxed to the Office.

Applicants respectfully request the revival of this application under 37 C.F.R. §1.137(b) if the first two petitions (see sections I and II of this paper) are denied.

McDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 SOUTH WACKER DRIVE, 32ND FLOOR CHICAGO, IL 60606 TELEPHONE (312) 913-0001

<sup>&</sup>lt;sup>1</sup> It is Applicants' position, however, that the application should not have been abandoned at all.

#### V. Conclusion

Applicants respectfully request that the holding of abandonment be withdrawn under 37 C.F.R. §1.181(a). If the Office denies this request, Applicants respectfully request that the holding of abandonment be withdrawn under 37 C.F.R. §1.183. If the Office denies this request, Applicants respectfully request that the application be revived under 37 C.F.R. §1.137(b).

		Respectfully submitted,	
Dated:	Ву:	Lisa M.W. Hillman, Ph.D. Reg. No. 43,673	
		(217) 239-1962	

#### V. Conclusion

Applicants respectfully request that the holding of abandonment be withdrawn under 37 C.F.R. §1.181(a). If the Office denies this request, Applicants respectfully request that the holding of abandonment be withdrawn under 37 C.F.R. §1.183. If the Office denies this request, Applicants respectfully request that the application be revived under 37 C.F.R. §1.137(b).

Respectfully submitted,

Dated: 6-12-06

By:

Lesa M.W. Hillman, Ph.D.

Reg. No. 43,673 (217) 239-1962

Constituence for Patents, Box PCI United States Patent and Tradactor DC 2923 Washington, D.C. 2923 www.usec.com

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TONIARD REP NO	FIRST NAMED APPLICANT	A111.	DOCKETIO	
U.S. APPLICATION NUMBER NO.	Ann Progulske-Fox	00	00-505-B	
09/980,845	Γ	INTERNATIONAL APP	LICATION NO.	
	<u> </u>	PCT/US00/2	21340	
		I.A. FILING DATE	PRIORITY DATE	
Lico M W. Hillman	L	08/04/2000	08/06/1999	

Lisa M.W. Hillman McDonnell Boehnen Hulbert & Berghoff 300 S Wacker Drive Suite 3200 Chicago, IL 60606

CONFIRMATION NO. 3701
371 FORMALITIES LETTER
\*OC000000007521267\*

Date Mailed: 02/28/2002

# NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated Office (37 CFR 1.494):

- U.S. Basic National Fees
- Indication of Small Entity Status
- Priority Document
- Biochemical Sequence Listing
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Request for Immediate Examination
- Small Entity Statement

DOCKETED

MAR 0 8 2002 DUE DATE: 4/28/03 BY: K.B.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

 Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTH FROM THE DATE OF THIS NOTICE OR BY 22 or 32 MONTHS (where 37 CFR 1.495 applies) FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

The following items MUST be furnished within the period set forth below:

- The nucleotide and/or am..... acid sequence disclosure contained in this application does not ....nply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
  - A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).
  - APPLICANT MUST PROVIDE:
    - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
    - A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase Patentin Software, call (703) 306-2600
  - For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
  - A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice MUST be returned with the response.

#### **VONDA M WALLACE**

Telephone: (703) 305-3736

#### PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
09/980,845	PCT/US00/21340	00-505-B

FORM PCT/DO/EO/905 (371 Formalities Notice)

### PATENT IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

in re Application of	)
	) Group Art Unit: TBA
Progulske-Fox	) Examiner: TBA
Serial No. 09/980,845	) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	) Intal. Appl. No.: PCT/US00/2130
Priority Date: Aug. 6, 1999	)

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### TRANSMITTAL LETTER

Asst. Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In regard to the above identified application,

- 1. We are transmitting herewith the attached:
  - a) Response to Notice to File Missing Parts;
  - b) Declaration and Power of Attorney;
  - c) Statement Under 37 C.F.R. § 1.821
  - d) Paper copy of Sequence Listing and Diskette copy;
  - e) Filing Fee Check;
  - f) Return postcard.
- 2. With respect to fees:
  - a) A check in the amount of \$65.00 is enclosed.
  - b) Please charge any underpayment or credit any overpayment our Deposit Account, No. 13-2490.
- GENERAL AUTHORIZATION: Please charge any additional fees or credit overpayment to Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
- 4. CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Asst. Commissioner for Patents, Washington, D.C. 20231 on March 27, 2002.

Date: March 27, 2002

Lisa M.W. Hillman Registration No. 43,673

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
• •	) Group Art Unit: TBA
Progulske-Fox	)
	) Examiner: TBA
Serial No. 09/980,845	)
	) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	)
	) Intnl. Appl. No.: PCT/US00/2130
Priority Date: Aug. 6, 1999	)

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### RESPONSE TO NOTICE TO FILE MISSING PARTS

Box Missing Parts
Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

The attached executed declaration is submitted in response to the Notification of Missing Requirements Under 35 U.S.C. 371 in the United States Designated/Elected Office mailed on February 28, 2002, in the above-mentioned case. Also enclosed is a paper copy of the sequence listing, a diskette containing the sequence listing and Statement Under 37 C.F.R. §1.821. A check for sixty-five dollars (\$65) for an oath or declaration surcharge is enclosed. It is believed that no further fee is due to make this filing complete; however, if a fee or credit is due the Commissioner is authorized to charge or credit our Deposit Account No. 13-2490.

Date:  $\frac{3}{27}\sqrt{o^2}$ 

Respectfully submitted,

Registration No.: 43,673

1

CERTIFICATE OF MAILING (37 C.F.R. 1.8a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner of Patents, Washington D.C. 20231, on 3/27/6.

Date: 3/27/02

Lisa M.W. Hillman

Case No.: 00-505-B

# DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

~.--

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

#### Microbial Polynucleotides Expressed During Infection of a Host

the specification of which is attached hereto unless the following space is checked:

was filed on November 15, 2001 as United States Application Serial Number 09/980,845.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

1.	<u>Number</u>	<u>Country</u>	Day/Month/Year Filed
	US00/21340	PCT	August 4, 2000
2			

2.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

	Application Number	Filing Date
1.	60/147,551	August 6, 1999
_		

2.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

application and the national or PCT international filing date of this application.				
Application Number	Filing Date	Status: patented, pending, abandoned		
•				

1. 2.

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

- 1 -

Customer Number: 020306

Principal attorney or agent: Lisa M.W. Hillman

Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

4 Jan - 25

Full name of first inventor

Ann Progulske-Fox

Inventor's signature:

6392 Country Read 214 S., Keystone Heights, Florida 32656
United States of America

Residence: Citizenship:

Post Office Address:

6392 Country Road 214 S., Keystone Heights, Florida 32656

Full name of second joint inventor. Martin Handfield

Inventor's signature:

Date: 3/20/

Date: 3/20/

Date: 3/20/

Date: 3/20/

. 1. .,⊷ =±

Residence: 10155 SW 52<sup>nd</sup> Road Gainesville, Florida 32608
Citizenship: Canada

Post Office Address: 10155 SW 52<sup>nd</sup> Road, Gainesville, Florida 32608

Full name of third joint inventor: Jeannine L. Bradley

Inventor's signature:

13214 NW County Road 231, Gainesville) Florida 32609 United States of America 13214 NW County Road 231, Gainesville, Florida 32609 Residence:

Citizenship: Post Office Address: Full name of fourth joint inventor: Jeffrey D. Hillman

Date: 3/11/02 Inventor's signature:

6424 SW 26th Place, Gainesville, Florida 32608 Residence:

Citizenship:

United States of America 6424 SW 26<sup>th</sup> Place, Gainesville, Florida 32608 Post Office Address:

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
	) Group Art Unit: TBA
Progulske-Fox	) Examiner: TBA
Serial No. 09/980,845	) Examiner. 15/1
Bellai No. 07/760,043	) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	)
	) Intnl. Appl. No.: PCT/US00/2130
Priority Date: Aug 6 1999	)

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### STATEMENT UNDER 37 C.F.R. §1.821

Honorable Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Enclosed is a written copy and a computer-readable copy of the sequence listing in the above mentioned case. The information recorded in computer readable form is identical to the written sequence listing. No new matter is added by the sequence listing.

Respectfully submitted,

Date: 3-27-02

Lisa M.W. Hillman Reg. No. 43,673

MCDONNELL, BOEHNEN, HULBERT & BERGHOFF 300 South Wacker Drive Chicago, IL 60606 (312) 913-0001

CERTIFICATE OF MAILING (37 C.F.R. 1.8a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner of Patents, Washington D.C. 20231, on

-- <u>3-27-02</u>.

Date: 3-27-02

Lisa M.W. Hillman

#### SEQUENCE LISTING

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     Brady, Jeannine
      Progulske-Fox, Ann
      Hillman, Jeffrey D.
<120> Microbial Polynucleotides Expressed During Infection of
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# JCOS Rec'd PCTATO O 8 APR 2002

Patents and Trademarks Hon. Commissioner of

S/N 09/980,845

LMWH

Microbial Polynucleotides Expressed During Infection Of A Host Case No. 00-505-B Re: Applicant - Progulske-Fox, et al.

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of:

Transmittal Letter

Signed Declaration

Filing Fee Check 

Other Response to Notice to File Missing Parts; Statement Under 3
Diskette and paper copy of sequence listing.

APR 8 2002

Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant

Fee Enclosed

\$ 65.00 March 27, 2002



#### UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents, Box PCT United States Patent and Tradamark Office Wæshington, D.C., 20231

 U.S. APPLICATION NUMBER NO.
 FIRST NAMED APPLICANT
 ATTY. DOCKET NO.

 09/980,845
 Ann Progulske-Fox
 00-505-B

 INTERNATIONAL APPLICATION NO.
 PCT/US00/21340

 Lisa M.W. Hillman
 La. FILING DATE
 PRIORITY DATE

 McDonnell Boehnen Hulbert & Berghoff
 08/04/2000
 08/06/1999

Lisa M.W. Hillman McDonnell Boehnen Hulbert & Berghoff 300 S Wacker Drive Suite 3200 Chicago, IL 60606

CONFIRMATION NO. 3701
371 FORMALITIES LETTER
10000000000008256428\*

Date Mailed: 06/12/2002

#### NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated Office (37 CFR 1.494):

- U.S. Basic National Fee
- Indication of Small Entity Status
- Priority Document
- Biochemical Sequence Diskette
- Biochemical Sequence Listing
- Copy of IPE Report
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Information Disclosure Statements
- Oath or Declaration
- Request for Immediate Examination
- Small Entity Statement

DOCKETED

DUE DATE: 6/28/02 BY: KG (1802)

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

The following items **MUST** be furnished within the period set forth below:

 The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):

- A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
- APPLICANT MUST PROVIDE:
  - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
  - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase Patentin Software, call (703) 306-2600
  - For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
  - A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
  - The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice MUST be returned with the response.

#### **VONDA M WALLACE**

Telephone: (703) 305-3736

#### PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY, DOCKET NO.	
09/980,845	PCT/US00/21340	00-505-B	

FORM PCT/DO/EO/916 (371 Formalities Notice)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
<b>11.0</b> 1.2pp	) Group Art Unit: TBA
Progulske-Fox	) Examiner: TBA
Serial No. 09/980,845	) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	) Intal. Appl. No.: PCT/US00/2130
Priority Date: Aug. 6, 1999	j .

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### TRANSMITTAL LETTER

Asst. Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In regard to the above identified application,

- 1. We are transmitting herewith the attached:
  - a) Response to Notice of Defective Response;
  - b) Written copy of sequence listing;
  - c) Computer Readable copy of sequence listing; and
  - d) Return postcard
- 2. With respect to fees:
  - a) It is believed no fee is due at this time.
  - b) Please charge any underpayment or credit any overpayment our Deposit Account, No. 13-2490.
- GENERAL AUTHORIZATION: Please charge any additional fees or credit overpayment to Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
- 4. CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Asst. Commissioner for Patents, Washington, D.C. 20231 on June 24, 2002.

Date: June 24, 2002

忆isa M.W. Hillman

Registration No. 43,673

Respectfully submitted.

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
**	) Group Art Unit: TBA
Progulske-Fox	) Evenines TRA
Serial No. 09/980,845	) Examiner: TBA
·	) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	)
Priority Date: Aug 6 1999	) Intnl. Appl. No.: PCT/US00/2130

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### RESPONSE TO NOTICE OF DEFECTIVE RESPONSE

Honorable Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

This paper is filed in response to the Notification of Defective Response mailed on June 12, 2002, in the above-mentioned case. It is believed that no fee is due in connection with this filing; however, if a fee is due please charge our deposit account number 13-2490.

Enclosed is a written copy and a computer-readable copy of the sequence listing in the above mentioned case. The information recorded in computer readable form is identical to the written sequence listing. No new matter is added by the sequence listing. Applicants respectfully request that the specification of the application be amended by

CERTIFICATE OF MAILING (37 C.F.R. 1.8a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner of Patents, Washington D.C. 20231, on

Date: 6/24/07

Lisa M.W. Hillman

deleting the previously filed sequence listing and the entry of the enclosed sequence listing.

Respectfully submitted,

Date: 624/02

Lisa M.W. Hillman Reg. No. 43,673

MCDONNELL, BOEHNEN, HULBERT & BERGHOFF 300 South Wacker Drive Chicago, IL 60606 (312) 913-0001

#### SEQUENCE LISTING

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      Brady, Jeannine
      Progulske-Fox, Ann
      Hillman, Jeffrey D.
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Lys Asp Leu Glu Thr Pro Thr Pro Tyr Asn Thr Tyr Val Ile Asp Gly 65 70 75 80

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Lys Ala Thr Pro Ser His 50

# BEST AVAILABLE COPY



## BEST AVAILABLE COP

Fee Enclosed

 $\boxtimes \boxtimes$ 

Transmittal Letter

Other Response to Notice of Defective Response; Sequence listing (computer readable

Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant

copy and written copy)

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of:

Hon. Commissioner of Patents and Trademarks

S/N 09/980,845

Case No. 00-505-B

Microbial Polynucleotides Expressed During Infection Of A Host

Re: Applicant - Progulske-Fox

HWMT

S/N 09/980,845 Hon. Commissioner of Patents and Trademarks

Atty

LMWH

Microbial Polynucleotides Expressed During Infection Of A Host Case No. 00-505-B Re: Applicant - Progulske-Fox

Sir. Please place the Patent Office receipt stamp hereon and mall to acknowledge receipt of:

Transmittal Letter
 Other Response to Notice of Defective Response; Sequence listing (computer readable copy and written copy)

Fee Enclosed

Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant

\$ -0-June 24, 2002



#### United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Vignia 22313-1450
www.mpto.gov

U.S. APPLICATION NUMBER NO. FIRST NAMED APPLICANT ATTY. DOCKET NO. 09/980,845

Ann Progulske-Fox

00-505-B

INTERNATIONAL APPLICATION NO.

PCT/US00/21340

I.A. FILING DATE

PRIORITY DATE

08/04/2000

08/06/1999

Lisa M.W. Hillman McDonnell Boehnen Hulbert & Berghoff 300 S Wacker Drive Suite 3200 Chicago, IL 60606

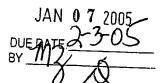
**CONFIRMATION NO. 3701 371 FORMALITIES LETTER** \*OC000000008256428\*

Date Mailed: 01/03/2005

#### NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495)

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 11/15/2001
- Copy of the International Search Report filed on 11/15/2001
- Copy of IPE Report filed on 04/08/2002
- Information Disclosure Statements filed on 04/08/2002
- Biochemical Sequence Diskette filed on 04/08/2002
- Oath or Declaration filed on 04/08/2002
- Biochemical Sequence Listing filed on 04/08/2002
- Small Entity Statement filed on 11/15/2001
- Request for Immediate Examination filed on 11/15/2001
- Copy of references cited in ISR filed on 11/15/2001
- U.S. Basic National Fees filed on 11/15/2001



Applicant's response filed 04/08/2002 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 02/28/2002 have not been completed.

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

The following items MUST be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
  - A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of Annex C of the Administrative Instructions and 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
  - The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
  - APPLICANT MUST PROVIDE:
    - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
    - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase Patentin Software, call (703) 306-2600
  - For Patentln Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice **MUST** be returned with the response.

VONDA M WALLACE

Telephone: (703) 305-3736

#### PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
09/980,845	PCT/US00/21340	00-505-B

FORM PCT/DO/EO/916 (371 Formalities Notice)



McDonnell Boehnen Hulbert & Berghoff

## URGENT

#### Fax transmittal

To Company Examiner Vonda M. Wallace

**USPTO** 

703 746 6711

Fax Phone

Pages, with cover

Re

Date From Direct

CAA

January 24, 2005 Lisa M.W. Hillman, Ph.D

312 935 2371

Emeil

hillman@mbhb.com

665/

Dear Examiner Wallace:

This paper is filed in response to the notice of defective response issued in the abovementioned application on January 3, 2005. The notice states that the content of the computer readable form of the sequence listing does not comply with the sequence listing requirements and states that a marked-up copy of the raw sequence listing is attached to the notice. However, the marked-up copy of the raw sequence listing was not attached to the raw sequence listing. Applicants respectfully request that a copy of the marked-up sequence listing be sent to the undersigned at the Office's earliest convenience.



McDonnell Boehnen Hulbert & Berghoff Law Offices

### URGENT

#### Fax transmittal

Examiner Vonda M. Wallace USPTO 703 746 6711

January 24, 2005 Lisa M.W. Hillman, Ph.D 312 935 2371 hillman@mbhb.com 665/ 6

Dear Examiner Wallace:

1

This paper is filed in response to the notice of defective response issued in the above-mentioned application on January 3, 2005. The notice states that the content of the computer readable form of the sequence listing does not comply with the sequence listing requirements and states that a marked-up copy of the raw sequence listing is attached to the notice. However, the marked-up copy of the raw sequence listing was not attached to the raw sequence listing. Applicants respectfully request that a copy of the marked-up sequence listing be sent to the undersigned at the Office's earliest convenience.

Thankyou.

Lisa M.W. Hillman, Ph.D

300 South Wacker Drivo 312 913 0001 phone Chicago, Ulinois 60806-6709 312 913 0002 fax www.mbhb.com

Plassa notify receptionist at 312 913 0001 if all pages are not received. If you received this fax in error, please notify us immediately by phone (collect to strange for return of the document.

This transmittal is strictly for delivery only to the person listed above, it may contain confidential or privileged information, the disclosure of which is prohibited.

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Doc. pages

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Date

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: MCDONNETE BOEHNEN HAEBERT & BERGHOFF

Fax number: +3129130002 : 14M-24-05 12:59

9miT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 00-505-B)

in re A	pplication of:	)			
	Progulske-Fox	) ) Examiner: To Be Assigned			
Serial		Group Art Unit: To Be Assigned			
Filed: For:	August 4, 2000  Microbial Polynucleotides Expressed  During Infection of a Host	} } }			
Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 TRANSMITTAL LETTER					
<ol> <li>We are transmitting herewith the attached papers for the above-identified patent application:</li> <li>☐ Transmittal letter (in duplicate);</li> <li>☐ Response to Notice of Defective Response;</li> <li>☐ Copy of Notification of Defective Response;</li> <li>☐ Paper copy of sequence listing;</li> <li>☐ Diskette of sequence listing;</li> <li>☐ Return Receipt Postcard</li> </ol>					
2.	GENERAL AUTHORIZATION TO CHARGE Of fees or credit overpayment to Deposit Accounts enclosed.	R CREDIT FEES: Please charge any additional nt No. 13-2490. A duplicate copy of this sheet			
3.	this Transmittal Letter and the paper describ	R §1.8: The undersigned hereby certifies that ed in paragraph 1, are being deposited with the t postage as first class mail in an envelope			

Dated: February 3, 2005

February 3, 2005.

Lisa M.W. Killman, Ph.I

Reg. No. 43,673

addressed to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
D. I.I. Paul	) Group Art Unit: TBA
Progulske-Fox	) Éxaminer: TBA
Serial No. 09/980,845	) ) Atty. Dckt. No.: 00-505-B
International Filing Date: Aug. 4, 2000	) )
Priority Date: Aug. 6, 1999	<u>`</u>

For: MICROBIAL POLYNUCLEOTIDES EXPRESSED DURING INFECTION OF A HOST

#### RESPONSE TO NOTICE OF DEFECTIVE RESPONSE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This paper is filed in response to the Notification of Defective Response mailed on January 3, 2005, in the above-mentioned case. It is believed that no fee is due in connection with this filing; however, if a fee is due please charge our deposit account number 13-2490.

The Notification of Defective Response stated that the computer readable copy was unreadable and also stated that errors found in the sequence listing were attached to the Notice. However, there was no attachment to the Notice. Applicants requested the attachment from Examiner Vonda Wallace on January 24, 2005 via phone and facsimile. However, the attachment to the Notice has not been received by Applicants. Applicants respectfully request that any errors in the sequence listing be brought to their attention at the Office's earliest convenience.

Enclosed is a written copy and a computer-readable copy of the sequence listing in the above mentioned case. The information recorded in computer readable form is identical to the written sequence listing. No new matter is added by the sequence listing. Applicants respectfully request that the specification of the application be amended by deleting the previously filed sequence listing and the entry of the enclosed sequence listing.

Date: 2/3/05

Respectfully submitted,

Lisa M.W. Hillman Reg. No. 43,673

MCDONNELL, BOEHNEN, HULBERT & BERGHOFF 300 South Wacker Drive Chicago, IL 60606 (312) 913-0001

#### SEQUENCE LISTING

```
<110> Handfield, Martin
     Brady, Jeannine
      Progulske-Fox, Ann
      Hillman, Jeffrey D.
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<151> 1999-08-06
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 tataagacaa gcccacgtca atcagggttt gcaatttacg cgcaatcatt ggaatggcat 240
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 cgtacacate gggcaggaag tgcatttcca ctttgattac gccgtcgccc tggcaggctt 420
 acagegeeeg cegegeaegt taaaactgaa acgeeeeggg ttataacege gegeaeggge 480
 tttcggtacg ccggcaaaca attcgcgaat cggcgtgaat acgcccgtgt aagttgcccg 540
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 nttgtgcaat anggaacaaa ntgtcgttaa tcagtgtaga atttacctta accggacacn 720
 congtgatgo aggtaaataa goocacggga atgtotaaat tgacgttttt caggttgtta 780
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 aataaaacgt attctacgtc taagttgtat ttttcttttg ccactttcgc tgcgatttca 180
 gecaettggt gttccggtcc tgccatcacg cccaetttga ttgttgccgg ggettctgcc 240
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gegettattt aagetaaaac accatettgg catteaggga tttttateeg ggetatteae 180
ttttgtcctg cgttccggtg ccagattatt gccgacatca ttactgaaaa acatctatca 240
aaccttttta agaaaataac atgatgaaat taaactgtat tttaaaaata tccggaattt 300
ccaccgcact ttttctagcg ggttgttcct caaattcaag tgcgccgacg caatcctctg 360
agcaggegaa ttetgttacg getgtgaate ceaetgeggt gtacagtaag eeeegcaett 420
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 agtgccggtg gaggcggnga aaattcactc acttggtgcg gaaggcaatg atgtgggatt 180
 gaaagcccat catggcgggt ggataaagcg ttattttta tgtcggcaga tgcctttcct 240
 gcgttaaatg cgttattaga cgaaaatttt tcgtatcagg acacagcagt ttacggcgag 300
 aattttgtgg tttccgcgct gaatgaagat tccgtgtgtg tgggcgatat ttatcaaatc 360
 ggeteetgeg tggtggaggt gtegeageeg egtaaacett gtgagegett atcgaaaaat 420
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ctgaacggtt cgcacagttg gtttgtggcg gacgcatcgg aagatttgac gcaactgcaa 180
caacgettgg cacaacggga tattttgett accgeacege ttateggega agaggacaaa 240
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cggcaagaac gcgtgaaagc cgcccgccgt ccgattttaa tgcaggcgca acagtttcaa 360
 tggcaatttg aaccgaacgg tttgcgcctt aaattttatt tgccggcagg cagttacgcc 420
 acggcgttgg tacgcgagct ggtgaatgtt gaaaactgaa aaacgagaag aaaaacagga 480
 ataacaagaa catgaatatt ttattaagta acgatgacgg cattcacgcg ccgggcattc 540
 gtgtgatggc agaacattgc gtaagattgc caatgtgacc atcgtcgcgc cggacagcaa 600
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 naaageggng attattgegt caacngeacn eeeggeggan tgegtgeata ttgeeetgae 720
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 ggtatgcgat ttggtgccga aattacacgc ccaattatta ggcaaacacg aaattctgaa 960
 tattaacgtg cccgatgtgc cttacgaaga actgaaaggc attaaagtgt gccatttggg 1020
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aaaatgaage tgcaaaccga tecgacegte atttacggca tgggegacga etacaacgge 180
aatattcgca aaaaagattt ggaaacgcca acgccttata acacctatgt gattgacggc 240
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 gcgcaaacgg cgttttatta tttcgtggca gacggcacgg ggggacacaa attcagtcgt 360
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 ggaaaataat atggtaggca aatttattgt cattgaaggc ttggaaggcg caggcaaaag 480
 caccgctcat caatgcgttg tggatacgtt aaaaacgtta ggtgttgggg aagtcatctc 540
 taccegegag cegggeggea caccegttgg eggaaaaget acgecatete attaaacatg 600
 aaaaccaana geengtgace egataaageg gaattactea tgetgtatge ngeegeetge 660
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ccagcatcat cgccagtccg atatgcagcc ctgaaatggc aattaaatgc gccgtatttg 300
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agtttccatt gcgcgtaaat acgttgttcn gggaagattt tcggcgaagt tttggcgccg 660
aataacccag gggttggata atgctgctga tgccanaaat ttccttgacn ggtaaatttc 720
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 tgccggtgcg gtgcccgctt gggttatcgg ctgattggtt gccggtgcag cagtacctac 240
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 cggggtgtaa gttacggtcg gttcaccacc ttgcgtagcc ggttgggtga ccgtcggttg 360
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 ttgtccgacg cttaagctgt aaggttcgga catattattc aacgccgcca attctttcac 480
 atccaaacca gaaatgtagg cgataaggaa catggtgtca cctttgcgta cggtatangt 540
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ggttgaaccg tccaccggtt gcatgagtcc cggggataag gtaccgtcgg cgttttccac 900
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aaaagaaaaa tacaacttag acgtagaata cgttttattc atgactacgc cttgccaaac 180
actgcagtgt ctaaaggtga tttagacgtt aacgcaatgc aacataaacc gtatttagac 240
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gcgcttattt aagctaaaac accatcttgg cattcaggga tttttatccg ggctattcac 180
ttttgtcctg cgttccggtg ccagattatt gccgacatca ttactgaaaa acatctatca 240
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 aaaatgaagc tgcaaaccga tccgaccgtc atttacggca tgggcgacga ctacaacggc 180
 aatattcgca aaaaagattt ggaaacgcca acgccttata acacctatgt gattgacggc 240
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 Leu Asn Gln Ala Lys Ala Glu Trp Arg Leu Phe Lys Leu Lys His His
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Val Ala Asp Ala Ser Glu Asp Leu Thr Gln Leu Gln Gln Arg Leu Ala
Gln Arg Asp Ile Leu Leu Thr Ala Pro Leu Ile Gly Glu Glu Asp Lys
 65
Ser Ala Val Asp Phe Glu Asn Glu Ile Phe Val Ala His Gln Ala Leu
Phe His Leu Met Arg Gln Glu Arg Val Lys Ala Ala Arg Arg Pro Ile
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            100
                                 105
Leu Met Gln Ala Gln Gln Phe Gln Trp Gln Phe Glu Pro Asn Gly Leu
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Arg Leu Lys Phe Tyr Leu Pro Ala Gly Ser Tyr Ala Thr Ala Leu Val
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Gly Arg Ile Asp Leu Val Ile Ser Gly Ile Asn Ala Gly Ala Asn Leu
Gly Asp Asp Val Leu Tyr Ser Gly Thr Val Ala Ala Ala Phe Glu Gly
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Thr Val Ile Tyr Gly Met Gly Asp Asp Tyr Asn Gly Asn Ile Arg Lys
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Lys Asp Leu Glu Thr Pro Thr Pro Tyr Asn Thr Tyr Val Ile Asp Gly 65 70 75 80

Leu Pro Pro Thr Pro Ile Ala Met Pro Ser Glu Glu Ala Leu Gln Ala 85 90 95

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Gly Glu Val Ile Ser Thr Arg Glu Pro Gly Gly Thr Pro Val Gly Gly
35 40 45

Lys Ala Thr Pro Ser His 50



## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alternativa, Vogania 22313-1450 www.nspto.gov

FIRST NAMED APPLICANT U.S. APPLICATION NUMBER NO.

ATTY. DOCKET NO. 00-505-B

09/980,845

Ann Progulske-Fox

INTERNATIONAL APPLICATION NO.

PCT/US00/21340

LA. FILING DATE

PRIORITY DATE

08/04/2000

08/06/1999

Lisa M.W. Hillman McDonnell Boehnen Hulbert & Berghoff 300 S Wacker Drive Suite 3200 Chicago, IL 60606

**CONFIRMATION NO. 3701 371 FORMALITIES LETTER** \*OC000000008256428\*

Date Mailed: 01/03/2005

## NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495)

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 11/15/2001
- Copy of the International Search Report filed on 11/15/2001
- Copy of IPE Report filed on 04/08/2002
- Information Disclosure Statements filed on 04/08/2002
- Biochemical Sequence Diskette filed on 04/08/2002
- Oath or Declaration filed on 04/08/2002
- Biochemical Sequence Listing filed on 04/08/2002
- Small Entity Statement filed on 11/15/2001
- Request for Immediate Examination filed on 11/15/2001
- Copy of references cited in ISR filed on 11/15/2001
- U.S. Basic National Fees filed on 11/15/2001

DOCKETED

JAN 0 7 2005\_

Applicant's response filed 04/08/2002 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 02/28/2002 have not been completed.

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

The following items MUST be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

The following items MUST be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
  - A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of Annex C of the Administrative Instructions and 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
  - The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
  - APPLICANT MUST PROVIDE:
    - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
    - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase Patentin Software, call (703) 306-2600
  - For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice **MUST** be returned with the response.

## **VONDA M WALLACE**

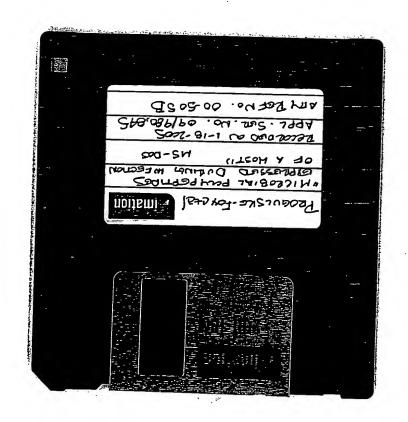
Telephone: (703) 305-3736

## PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
09/980,845	PCT/US00/21340	00-505-B

FORM PCT/DO/EO/916 (371 Formalities Notice)

# **BEST AVAILABLE COPY**



Patents and Trademarks Hon. Commissioner of

SN 09/980,845

₽

LMWH/tmp

Re: Applicant Progulske-Fox

Case No.: 00-505-B

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of: Microbial Polynucleotides Expressed During Infection of a Host

☒ Transmittal Letter (with Duplicate)
 ☒ Response to Notice of Defective Response
 ☒ Copy of Notification of Defective Response
 ☒ Paper and disk copy of correct sequence listing
 ☒ Return Receipt Postcard

Fee Enclosed \$0.00

February 3, 2005

Respectfully, McDonnell Boehnen Hulbert & Berghoff Attorney for Applicant

Patents and Trademarks Hon. Commissioner of

SN 09/980,845

Αtty

LMWH/tmp

Case No.: 00-505-B

# Re: Applicant Progulske-Fox

# Microbial Polynucleotides Expressed During Infection of a Host

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of:

 ☒ Transmittal Letter (with Duplicate)
 ☒ Response to Notice of Defective Response
 ☒ Copy of Notification of Defective Response □ Paper and disk copy of correct sequence listing

M Return Receipt Postcard

AND DESCRIPTION OF THE PARTY OF

Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant

Fee Enclosed \$0.00

February 3, 2005



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Percent and Trademark Office Address COMMESSIGNER FOR PATENTS PARTMENT OFFICE 2010, 1450 Westerfaller

U.S. APPLICATION NUMBER NO	FIRST NAMED APPLICANT	ATTY, DOCKET NO.
09/980,845	Ann Progutske-Fox	00-505-B

INTERNATIONAL APPLICATION NO.

PCT/US00/21340

1A FILING DATE | PRICRITY DATE | 08/04/2000 | 08/06/1999

Lisa M.W. Hillman McDonnell Boehnen Hulbert & Berghoff 300 S Wacker Drive Suite 3200 Chicago, IL 60606

**CONFIRMATION NO. 3701** 

'CC000000018184385'

Date Mailed: 03/03/2006

## NOTIFICATION OF ABANDONMENT

The United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495) has made the following determination:

 Applicant has failed to respond to the notification of MISSING REQUIREMENTS (Form PCT/DO/EO/905), mailed 02/28/2002 within the time period set therein.

Therefore, the above identified application failed to meet the requirements of 35 U.S.C. 371 and 37 CFR 1.495, and is ABANDONED AS TO THE UNITED STATES OF AMERICA.

**VONDA M WALLACE** 

Telephone: (703) 308-9140 EXT 225

PART 3 - OFFICE COPY

FORM PCT/DO/EO/909 (371 Abandonment Notice)

## STIC Biotechnology Systems Branch

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	09/980,845A
Source:	1/18/0h
Date Processed by STIC:	1718/06
•	7 7

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS, PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM. ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkruote.htm

Applicants submitting genetic sequence information electronically on disketts or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<a href="http://www.uspto.gov/ebc/efs/downloads/documents.htm">http://www.uspto.gov/ebc/efs/downloads/documents.htm</a>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
  U.S. Patent and Tredemark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street,
  Alexandria, VA 22314

Revised 01/10/06



IPW2

RAW SEQUENCE LISTING DATE: 01/18/2006 PATENT APPLICATION: 09/09/980,845A TIME: 15:36:00

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Output Set: N:\CRF4\01182006\1980845A.raw

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             Brady, Jeannine
             Progulske-Fox, Am
             Hillman, Jeffrey D.
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    11 <130> FILE REPERENCE: MBHBCO-505B
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C--> 14 <141> CURRENT FILING DATE: 2001-11-15
    16 <150> PRIOR APPLICATION NUMBER: 60/147,551
    17 <151> PRIOR FILING DATE: 1999-08-06
    19 <150> PRIOR APPLICATION NUMBER: PCT/US00/21340
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PATENT APPLICATION: US/09/980.845A TIME: 15:36:00

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RAW SEQUENCE LISTING DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A TIME: 15:36:00

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     89 ccagtttcac ccgttgcgct tccccgccgg acagggtggt agaggattgc cccaagcgaa 180
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     91 cgasaaarte gegegeatet tecacegtea tgtecageac etgatgaatg gttttacett 300
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    136 gegettattt aagetaaaac accatettgg catteaggga titttateeg ggetatteac 180
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     146 cogaaaaatt atotyttago ottytyyyyo atygagagta gotttyyota ttatoayyyo 780
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RAW SEQUENCE LISTING DATE: 01/18/2006
PATENT APPLICATION: US/09/980,845A TIME: 15:36:00

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Output Set: N:\CRP4\01182006\1980845A.raw

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214 <223> OTHER INFORMATION: N stands for any nucleotide.
216 <220> FEATURE:
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227 <221> NAME/KEY: misc feature
228 <222> LOCATION: (65)
229 <223> OTHER INFORMATION: N stands for any nucleotide.
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236 <220> FEATURE:
237 <221> NAME/KEY: misc feature
238 <222> LOCATION: (73)
239 <223> OTHER INFORMATION: N stands for any polynucleotide.
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. 460 . 000

Input Set : A:\seqlistcorrected.2002.06.21.txt Output Set: N:\CRF4\01182006\1980845A.rav 241 <220> FEATURE: 242 <221> NAME/KEY: misc\_feature 243 <222> LOCATION: (97) 244 <223> OTHER INFORMATION: N stands for any nucleotide. 246 <220> FEATURE: 247 <221> NAME/KEY: misc feature 248 <222> LOCATION: (102) 249 <223> OTHER INFORMATION: N stands for any nucleotide. 251 <220> FEATURE: 252 <221> NAME/KEY: misc feature 253 <222> LOCATION: (138) 254 <223> OTHER INFORMATION: N stands for any nucleotide. 256 <220> PEATURE: 257 <221> NAME/KEY: misc feature 258 <222> LOCATION: (457) 259 <223> OTHER INFORMATION: N stands for any nucleotide. 261 <220> FEATURE: 262 <221> NAME/KRY: misc\_feature 263 <222> LOCATION: (459) 264 <223> OTHER INFORMATION: M stands for any nucleotide. 266 <220> FEATURE: 267 <221> NAME/KEY: misc\_feature 268 <222> LOCATION: (467) 269 <223> OTHER INFORMATION: W stands for any nucleotide. 271 <400> SEQUENCE: 4 W--> 272 ttgatacent ageogetgae namaectane angenntgaa taatategas taattaanat 60 273 nngchaggng cancagetta cetttgeega eggttenetg thigaaageg ecattegeaa 120 274 agtgccggtg gaggcggnga aaattcactc acttggtgcg gaaggcaatg atgtgggatt 180 275 gaaagcccat catggcgggt ggataaagcg ttattttta tgtoggcaga tgcctttcct 240 276 gcgttaaatg cgttattaga cgaaaatttt tcgtatcagg acacageagt ttacggcgag 300 277 aatttigtgg titteegeget gaatgaagat teegigtgig tgggegatat tiateaaate 360 278 ggctcctgcg tggtggaggt gtcgcagccg cgtaaacctt gtgagcgctt atcgaaaaat 420 279 accaataato egaacaegea acaaacegtg taegetneng erggtengge tggtatgtge 480 280 cggtggtacc ccaaggggga aattcaa 263 <210> SEQ ID NO: 5 284 <211> LENGTH: 1087 285 <212> TYPE: DNA 286 <213> ORGANISM: Actinobacillus actinomycetemcomitans 289 <220> YEATURE: 289 <221> NAME/KEY: misc feature 290 <222> LOCATION: (622) 291 <223> OTHER INFORMATION: N stands for any nucleotide. 293 <220> PEATURE: 294 <221> NAME/KEY: misc\_feature 295 <222> LOCATION: (642) 296 <223> OTHER INFORMATION: N stands for any nucleotide.

DATE: 01/18/2006

TIME: 15:36:00

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,845A

299 <221> NAME/KEY: misc feature

298 <220> PEATURE:

300 <222> LOCATION: (661)

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/18/2006
PATENT APPLICATION: US/09/980.845A TIME: 15:36:01

Input Set: A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRP4\01182006\1980845A.raw

## Please Note:

Ose of n and/or xan have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xan.

Seq#:1; N Pos. 566,625,627,636,650,656,661,670,681,720,723

Seq#:3; N Pos. 554,596

Seq#:4; N Pos. 4,6,21,23,29,32,35,36,39,42,45,49,51,55,61,62,65,69,73,97

Seq#:4; N Pos. 102,138,457,459,467

Seq#:5; N Pos. 572,642,661,669,685,690,700

Seq#:5; N Pos. 609,614,651,665

Seq#:7; N Pos. 532,630,696,710,722,725

Seq#:8; N Pos. 538

Seq#:12; N Pos. 131,151,170,178,194,199,209

Seq#:18; Xaa Pos. 43,50,59,66,69

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## VERIFICATION SUMMARY DATE: 01/18/2006 PATENT APPLICATION: US/09/980,845A TIME: 15:36:01

Input Set : A:\seqlistcorrected.2002.06.21.txt
Output Set: N:\CRF4\01182006\T980845A.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:540 M:341 Repeated in SegNo=1 L:143 M:341 W: (46) "n" or \*Xaa" used, for SEQ ID#:3 after pos.:540 L:272 M:341 H: [46] "n" or "Xaa" used, for SEQ ID#:4 after pos.:0 M:341 Repeated in SeqNo=4 L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:600 M: 341 Repeated in SeqNow5 L:381 M:341 W: (46) \*n\* or \*Xaa\* used, for SEQ ID#:6 after pos.:600 M:341 Repeated in SeqNo=6 L:429 M:341 W: {46} "n" or "Xaa" used, for SEQ IDE:7 after pos.:480 M:341 Repeated in SeqNo=7 L:456 M:341 W: (46) "n" or "Xaa" uged, for SEQ ID#:8 after pos.:480 L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:120 M:341 Repeated in SegNo-12 L:709 K:341 W: (46) "r" or "Xma" used, for SEQ ID#:18 after pos.:32 M:341 Repeated in Secto-18

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